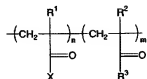


(b) Amendments to the Claims:

The following is a complete listing of the claims in this application, reflects all changes currently being made to the claims, and replaces all earlier versions and all earlier listings of the claims:

1. (Currently Amended) A positive type photosensitive resin composition comprising a polyacrylate resin having, in the structure, at least a structural unit represented by the following general formula (1):

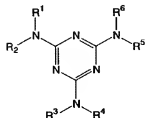
General ~~General~~ formula (1)



wherein X represents a hydroxyl group, an alkoxylol ~~alkylol~~ group having 2 to 4 carbon atoms, or a methylolamino group; R¹ and R² independently represents a hydrogen atom, or an alkyl group having 1 to 3 carbon atoms; R³ represents an alkyl group having 1 to 3 carbon atoms, an alkoxyl group having 1 to 3 carbon atoms, or an aralkyl group having an aryl group or alkyl group with 1 to 2 carbon atoms; n represents a positive integer; and m represents 0 or a positive integer, and a condensable crosslinker.

2. (Original) The photosensitive resin composition according to claim 1, wherein the condensable crosslinker is at least one selected from the group consisting of melamine compounds represented by the following general formula (2):

General formula (2)



wherein R^1 to R^6 independently represents a hydrogen atom, a methylol group, or an alkoxymethyl group to which an alkoxy group having 1 to 4 carbon atoms is bonded; provided that, at least two of R^1 to R^6 represent methylol groups, or alkoxymethyl groups to which an alkoxy group having 1 to 4 carbon atoms is bonded, and a condensation product thereof.

3. (Original) The photosensitive resin composition according to claim 1, wherein the intermolecular crosslinking reaction of said photosensitive resin composition through a crosslinker proceeds by heating; and the main chain decomposition type molecular decomposition reaction proceeds by the irradiation of ionizing radiation.

4. (Original) The photosensitive resin composition according to claim 1, wherein said photosensitive resin composition further comprises a photoacid generator, and the main chain decomposition type molecular decomposition reaction caused by the irradiation of ionizing radiation proceeds simultaneously with the decomposition reaction of a crosslinked site by the acid generated by the irradiation of ionizing radiation.

5. (Original) The photosensitive resin composition according to claim 4, wherein the photoacid generator is at least one selected from the group consisting of aromatic sulfonium salts, aromatic iodonium salt and triazine compounds.

6. (Currently Amended) A process for manufacturing an ink jet head comprising a discharge port for discharging an ink, an ink flow path communicated with said discharge port, and an energy generating element for generating energy for discharging the ink, characterized in that the process comprises:

(1) a step of preparing a substrate provided with an energy generating element;

(2) a step of forming a photosensitive resin layer that can be dissolved and removed so as to cover said energy generating element on the surface of said substrate on which said energy generating element is provided;

(3) a step of patterning said photosensitive resin layer to form an ink flow path pattern;

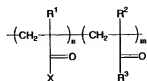
(4) a step of forming a coating resin layer for forming the wall of the ink flow path on said ink flow path pattern;

(5) a step of forming an ink discharge port in the coating resin layer located on the energy generating element; and

(6) a step of ~~dissolving and~~ removing the ink flow path pattern to form the ink flow path communicated with said discharge port; and

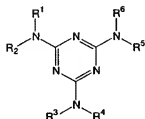
the process employs a positive type photosensitive resin composition comprising at least a structural unit represented by the following general formula (1):

General formula (1)



wherein, X represents a hydroxyl group, an alkoxylol alkylol group having 2 to 4 carbon atoms, or a methylolamino group; R¹ and R² independently represents a hydrogen atom, or an alkyl group having 1 to 3 carbon atoms; R³ represents an alkyl group having 1 to 3 carbon atoms, an alkoxy group having 1 to 3 carbon atoms, or an aralkyl group having an aryl group or alkyl group with 1 to 2 carbon atoms; n represents a positive integer; and m represents 0 or a positive integer, and a condensable crosslinker represented by the following general formula (2):

General formula (2)



Wherein R¹ to R⁶ independently represents a hydrogen atom, a methylol group, or an alkoxymethyl group to which an alkoxy group having 1 to 4 carbon atoms is bonded; provided that, at least two of R¹ to R⁶ represent methylol groups, or alkoxymethyl groups to which an alkoxy group having 1 to 4 carbon atoms is bonded.

7. (Original) The process for manufacturing an ink jet head according to claim 6 characterized in that said positive type photosensitive resin composition further comprises a photoacid generator.

8. (Original) The process for manufacturing an ink jet head according to claim 7 characterized in that the photoacid generator is at least one selected from the group consisting of aromatic sulfonium salts, aromatic iodonium salts and triazine compounds.

9. (Original) The process for manufacturing an ink jet head according to claim 6, wherein a developer containing:

(1) a glycol ether having 6 or more carbon atoms that can be mixed with water in an optional proportion;

(2) a nitrogen-containing basic organic solvent; and

(3) water;

is used as the developer for the positive type photosensitive resin composition.

10. (Original) The process for manufacturing an ink jet head according to claim 9, wherein the glycol ether is at least one selected from the group consisting of ethylene glycol monobutyl ether and diethylene glycol monobutyl ether.

11. (Original) The process for manufacturing an ink jet head according to claim 9, wherein the nitrogen-containing basic organic solvent is at least one selected from the group consisting of ethanolamine and morpholine.

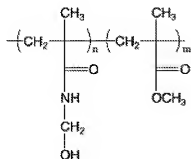
12. (Original) The process for manufacturing an ink jet head according to claim 6, wherein the coating resin contains a curable epoxy compound.

13. (Original) The process for manufacturing an ink jet head according to claim 6, wherein the coating resin contains a cationic photopolymerization initiator.

14. (Cancelled).

15. (Cancelled).

16. (New) A positive type photosensitive resin composition comprising a polyacrylate resin having, in the structure, at least a structural unit represented by the following formula:



wherein m and n represent positive integers, and a condensable crosslinker.

17. (New) A process for manufacturing an ink jet head comprising a discharge port for discharging an ink, an ink flow path communicated with said discharge port, and an energy generating element for generating energy for discharging the ink, characterized in that the process comprises:

preparing a substrate provided with an energy generating element;

forming a photosensitive resin layer on the surface of said substrate on which said energy generating element is provided;

patterning said photosensitive resin layer to form an ink flow path pattern;

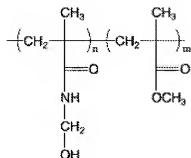
forming a coating resin layer for forming the wall of the ink flow path on said ink flow path pattern;

forming an ink discharge port in the coating resin layer located on the energy generating element; and

removing the ink flow path pattern to form the ink flow path; and

the process employs a positive type photosensitive resin composition

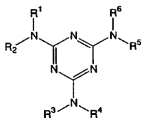
comprising a resin having a structural unit represented by the following formula:



wherein m and n represent positive integers, and a condensable

crosslinker represented by the following general formula (2):

General formula (2)



wherein R¹ to R⁶ independently represents a hydrogen atom, a methylol group, or an alkoxymethyl group to which an alkoxy group having 1 to 4 carbon atoms is bonded; provided that, at least two of R¹ to R⁶ represent methylol groups, or alkoxymethyl groups to which an alkoxy group having 1 to 4 carbon atoms is bonded.

18. (New) A process for manufacturing an ink jet head comprising a discharge port for discharging an ink, an ink flow path communicated with said discharge port, and an energy generating element for generating energy for discharging the ink, characterized in that the process comprises:

preparing a substrate provided with an energy generating element;

forming a first layer on the substrate;

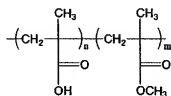
forming a second layer on the first layer,

wherein the second resin layer comprises

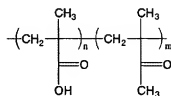
a plurality of first compounds, the first compound having one selected

from following structural units:

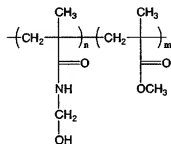
Unit 1



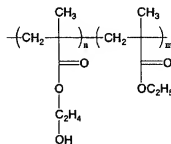
Unit 2



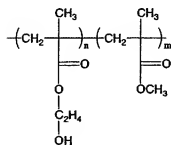
Unit 3



Unit 4



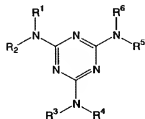
Unit 5



wherein m and n represent positive integers, and a compound represented by

the following general formula (2):

General formula (2)



wherein R^1 to R^6 independently represents a hydrogen atom, a methylol group, or an alkoxymethyl group to which an alkoxy group having 1 to 4 carbon atoms is bonded; provided that, at least two of R^1 to R^6 represent methylol groups, or alkoxymethyl groups to which an alkoxy group having 1 to 4 carbon atoms is bonded;

heating the second layer so as to crosslink the plurality of the first compounds each other;

patterning said second layer to form an ink flow path pattern;

patterning said first layer to form an ink flow path pattern;

forming a coating resin layer for forming the wall of the ink flow path, by solvent coating, on said ink flow path pattern;

forming an ink discharge port in the coating resin layer; and

removing the ink flow path pattern to form the ink flow path.

19. (New) The process for manufacturing an ink jet head according to claim 18, characterized in that said second layer comprises a photoacid generator, and patterning said second layer is performed by irradiating light to said second layer.

20. (New) The process for manufacturing an ink jet head according to claim 19, characterized in that when said second layer is patterned, said crosslinked portions are decomposed by an acid generated in a reaction of said photoacid generator by irradiating said light to said second layer.

21. (New) A process for manufacturing an ink jet head comprising a discharge port for discharging an ink, an ink flow path communicated with said discharge port, and an energy generating element for generating energy for discharging the ink, characterized in that the process comprises:

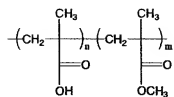
preparing a substrate provided with an energy generating element;

forming a first layer on the substrate,

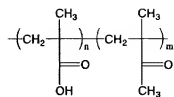
wherein the first layer comprises

a plurality of first compounds, the first compound having one selected from following structural units:

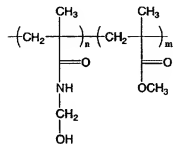
Unit 1



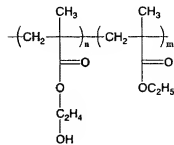
Unit 2



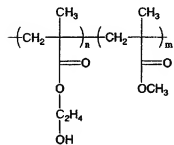
Unit 3



Unit 4

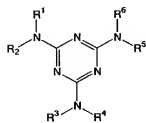


Unit 5



wherein m and n represent positive integers, and a compound represented by the following general formula (2):

General formula (2)



wherein R¹ to R⁶ independently represents a hydrogen atom, a methylol group, or an alkoxymethyl group to which an alkoxy group having 1 to 4 carbon atoms is bonded; provided that, at least two of R¹ to R⁶ represent methylol groups, or alkoxymethyl groups to which an alkoxy group having 1 to 4 carbon atoms is bonded;

heating the first layer so as to crosslink the plurality of the first compounds each other;

patterning the layer to form an ink flow path pattern;

forming a coating resin layer for forming the wall of the ink flow path, by solvent coating, on said ink flow path pattern;

forming an ink discharge port in the coating resin layer; and

removing the ink flow path pattern to form the ink flow path.

22. (New) The process for manufacturing an ink jet head according to claim 21, characterized in that said second layer comprises a photoacid generator, and patterning said second layer is performed by irradiating light to said second layer.

23. (New) The process for manufacturing an ink jet head according to claim 22, characterized in that when said second layer is patterned, said crosslinked portions are decomposed by an acid generated in a reaction of said photoacid generator by irradiating said light to said second layer.